

### **REMARKS**

The Office Action of August 6, 2007 was received and reviewed. The Examiner is thanked for reviewing this application. Reconsideration and withdrawal of the currently pending rejections are requested for the reasons advanced in detail below.

Claims 1-27 are pending in the instant application. By this Amendment, claims 1, 3, 5, 7, 9, 11, 14, 16, 19, 21, 23 and 25 are amended to clarify features of the present invention. No new matter has been introduced. Therefore, claims 1-27 remain pending with claims 1, 5, 9, 14, 19 and 23 being independent.

In the Office Action, claims 1, 4, 5, 8, 9, 12, 14, 17, 19, 22, 23 and 26 stand rejected under 35 U.S.C. § 103(a) over U.S. Pat. Pub. 2004/0023478 to Samavedam et al. (Samavedam) in view of U.S. Patent No. 6,300,196 to Chang (Chang). Further, claims 2, 3, 6, 7, 10, 11, 13, 15, 16, 18, 20, 21, 24, 25 and 27 stand rejected under 35 U.S.C. § 103(a) over Samavedam in view of Chang as applied to claims 1, 5, 14, 19 and 23, and further in view of U.S. Patent No. 5,445,710 to Hori et al. (Hori). These rejections are respectfully traversed at least for the reasons provided below.

Applicants respectfully submit that Samavedam, Chang, and Hori, taken alone or in combination, fail to disclose, teach or suggest all of the features as recited in the amended claims. For example, amended independent claims 1, 5, 9, 14, 19 and 23 each similarly recite, *inter alia*, the features of forming a second conductive layer over and in contact with the first conductive layer, etching the second conductive layer, performing a plasma treatment to the second conductive layer and then etching a tapered portion of the second conductive layer. Thus, the steps of etching, performing a plasma treatment after etching, and etching after plasma treatment are performed to the same conductive layer (the second conductive layer). Applicants contend that these features are supported in the Embodiment Mode 1 of the specification and Figs. 1A-1E. However, neither Samavedam nor Chang teach or suggest the features of the steps of etching, performing a plasma treatment after etching, and etching after plasma treatment are performed to the same conductive layer, as presently claimed.

The Examiner asserts on page 4 of the Office Action that “it would be obvious to one of the ordinary skill in the art at the time the invention was made to modify the process used by Samavedam to form tapered side wall in the gate structure because Chang illustrates that the generation of tapered side wall by anisotropic etching results in an increased surface area between the dielectric layer and gates which enhances capacitance between the floating gate and the control gate.” It should be noted that Chang discloses a non volatile memory device having a floating gate and a control gate, however, the devices of Samavedam are MOS transistors which do not have a floating gate or a control gate. Thus, Samavedam does not require the need to enhance capacitance between the floating gate and the control gate as asserted by the Examiner. Therefore, Applicants contend that the Examiner’s statement regarding the motivation is not appropriate, and there is no motivation to combine Samavedam and Chang.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. *MPEP* §2142. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, to modify the references or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art must teach all the claim limitations. *MPEP* §2142.

Applicants respectfully point to the first prong of the test, which states there must be some suggestion or motivation, to modify the references or to combine reference teachings. There is no suggestion or motivation, to modify Samavedam and Chang or to combine the reference teachings the combination of Samavedam and Chang as set forth above in this response. Further, Applicants respectfully point to the final prong of the test, which states the prior art must teach all the claim limitations. The combination of Samavedam and Chang does not teach all of the claim limitations of independent claims 1, 5, 9, 14, 19 and 23 for the reasons set forth above in this response. Thus, it cannot be said that Samavedam, taken in combination with Chang, makes obvious the present invention as claimed.

Further, Hori does not cure the deficiencies of Samavedam and Chang. Therefore, Applicants respectfully submit that independent claims 1, 5, 9, 14, 19 and 23 are allowable as discussed previously. Further, any claim that depends from an allowable claim is allowable

as well. Thus, Applicants respectfully request that the rejection of dependent claims 2-4, 6-8, 10-13, 15-18, 20-22 and 24-27 likewise be removed.

In view of the foregoing, it is respectfully requested that the rejections of record be reconsidered and withdrawn by the Examiner, that claims 1-27 be allowed and that the application be passed to issue. If a conference would expedite prosecution of the instant application, the Examiner is hereby invited to telephone the undersigned to arrange such a conference.

**Except** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 19-2380. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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